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HYDROLOGICAL MEMORANDA No.29

RAINFALL, 1916-1950, OVER THE ISLANDS OF ORKNEY AND SHETLAND AND THE AREAS OF NAVER, THURSO AND WICK WATER TO CONON

1. Rainfall Averages for the standard 35 year-period, 1916-1950

The determination of 35-year averages, for the months and for the year, was carried out in three stages.

a. Sound, homogeneous records complete for the 35 years, 1916-50, were selected to provide arithmetical averages of monthly and annual rainfall. The averages for stations in this group are given in Table I together with the percentage ratio of each monthly average to the relevant annual average.

The percentage ratios, plotted on a series of 12 maps - one for each calendar month - enabled isopercental lines to be drawn for the whole of Scotland. Small scale copies of the maps for the areas of this Memorandum are shown in Figure 1.

b. Annual averages for the period 1916-1950 were estimated for short-period stations using the methods described in Hydrological Memorandum No.5. The annual averages so found were then apportioned over the 12 calendar months using the isopercental maps referred to in a. above. Table II contains the resulting averages for those stations whose records were acceptable when subjected to the statistical tests mentioned in Hydrological Memorandum No. 5.

c. All available annual averages were plotted, and isohyets drawn on large scale maps. The isohyets, on a reduced scale, are reproduced as Figure 2.

2. Daily Rainfall, 1916-50

A number of stations with regular daily readings were chosen from Table I to provide, for each date of the year, a mean daily value based on the rainfall over the 35 years, 1916-50. The means are shown as accumulations in Table III, the entry under any particular date being the mean rainfall from January 1st to the date in question.

The mean rainfall for any particular period can be obtained by subtracting the accumulated total at the beginning of the period in question from the corresponding total at the end of the period.

3. Frequencies of Daily Rainfall, 1916-50

Stations selected from Table I were used to provide accumulated frequencies of daily rainfall amounts in intervals of mainly 0.10 inch. These are shown in Table IV. For example, the entry at 0.20 inch is the total number of days in the 35 years, 1916-50, with falls of 0.20 inch or more.

4. Extremes of Rainfall

For selected stations, maximum daily falls are set out in Table V, for periods between 1900 and 1963.

5. Further details about rainfall, for example maximum and minimum monthly and annual totals, can be obtained from the Meteorological Office, 26 Palmerston Place, Edinburgh, 12.

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Table I. Monthly and Annual Averages of Rainfall (inches) 1916-1950
Orkney and Shetland, Naver, Thurso and Wick Water to Conon Areas.

Station	Ht. (Ft)	N.G.R.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Year	
Orkney and Shetland																
Baltasound	78	HP(412) 609090	4.92	3.88	3.68	2.96	2.39	2.57	2.65	2.88	4.05	4.77	5.13	5.05	44.93	Inch
			11.0	8.6	8.2	6.6	5.3	5.7	5.9	6.4	9.0	10.6	11.4	11.3	100.0	%
Lerwick	269	HU(411) 454396	5.08	4.07	3.57	2.93	2.31	2.25	2.73	2.96	3.94	4.69	4.94	5.08	44.55	Inch
			11.4	9.1	8.0	6.6	5.2	5.1	6.1	6.6	8.9	10.5	11.1	11.4	100.0	%
Balfour Castle	50	HY(310) 474165	3.59	2.70	2.32	2.16	1.60	1.66	2.13	2.41	3.09	3.87	3.80	3.94	33.27	Inch
			10.9	8.1	7.0	6.5	4.8	5.0	6.4	7.2	9.3	11.6	11.4	11.8	100.0	%
Hellyar Holm Lighthouse	35	HY(310) 483151	3.73	2.77	2.35	2.28	1.72	1.81	2.33	2.55	3.30	4.01	3.90	3.98	34.73	Inch
			10.8	8.0	6.8	6.6	4.9	5.2	6.7	7.3	8.5	11.5	11.2	11.5	100.0	%
Naver and Thurso																
Reay, The Manse	49	NC (29) 971648	3.77	2.73	2.33	2.33	1.97	2.35	2.95	3.10	3.50	4.06	3.96	3.78	36.83	Inch
			10.2	7.4	6.3	6.3	5.4	6.4	8.0	8.4	9.5	11.0	10.8	10.3	100.0	%
Buckies	240	ND (39) 109633	4.02	2.79	2.61	2.47	2.21	2.50	3.13	3.29	3.73	4.01	4.23	3.94	38.93	Inch
			10.3	7.2	6.7	6.3	5.8	6.4	8.0	8.4	9.6	10.3	10.9	10.1	100.0	%
Wick Water to Conon																
Wick	119	ND (39) 366523	2.93	2.00	1.81	2.03	1.81	2.04	2.57	2.63	2.90	3.12	3.16	2.97	29.97	Inch
			9.8	6.7	6.0	6.8	6.0	6.8	8.6	8.8	9.7	10.4	10.5	9.9	100.0	%
Clythness	133	ND (39) 291363	2.91	2.01	1.90	2.21	1.90	1.92	2.70	2.55	2.82	3.05	3.06	2.64	29.67	Inch
			9.8	6.8	6.4	7.4	6.4	6.5	9.1	8.6	9.5	10.3	10.3	8.9	100.0	%
Geanies House	200	NH (28) 895793	1.88	1.32	1.24	1.47	2.01	1.80	2.68	2.49	2.25	2.59	2.04	1.82	23.59	Inch
			8.0	5.6	5.2	6.2	8.5	7.6	11.4	10.5	9.7	11.0	8.6	7.7	100.0	%
Fortrose	15	NH (28) 749557	2.26	1.70	1.49	1.66	1.92	1.79	2.74	2.57	2.21	2.81	2.23	2.05	25.43	Inch
			8.9	6.7	5.9	6.5	7.5	7.0	10.8	10.1	8.7	11.0	8.8	8.1	100.0	%

Table II. Monthly and Annual Averages of Rainfall, 1916-1950, Estimated for Short-Term Stations
Orkney and Shetland, Naver, Thurso and Wick Water to Conon Areas

Station	N.G.R.	Height (Feet)	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Year (Inches)
Orkney and Shetland															
Saltness	HU(411) 541628	30	4.05	3.06	2.84	2.44	1.93	1.97	2.22	2.41	3.36	3.94	4.17	4.08	36.47
Vementry	HU(411) 309597	25	4.28	3.16	3.01	2.54	2.04	2.04	2.32	2.54	3.59	4.34	4.40	4.34	38.60
North Ronaldshay Lighthouse	HY(310) 787561	22	3.94	2.87	2.55	2.34	1.63	1.84	2.34	2.66	3.33	4.00	3.97	3.97	35.44
Stenness	HY(310) 299118	75	4.27	3.05	2.65	2.61	1.98	2.06	2.73	3.09	3.76	4.51	4.44	4.44	39.59
Kirkwall	HY(310) 483076	84	4.25	3.15	2.68	2.60	1.93	2.04	2.64	2.87	3.74	4.53	4.41	4.53	39.37
Graemsay, Low, Lighthouse	HY(310) 269061	40	4.31	3.12	2.75	2.71	2.13	2.13	2.88	3.24	3.90	4.69	4.61	4.61	41.08
Naver and Thurso															
Keoldale	NC (29) 381662	16	4.98	3.45	3.26	3.26	2.49	3.08	3.50	3.93	4.60	5.27	5.22	4.89	47.93
Gobernuisgach	NC (29) 437417	250	8.63	6.36	5.65	5.65	3.69	4.87	5.34	6.20	7.30	8,71	8.16	7.93	78.49
Ben Hee	NC (29) 409368	1715	11.89	8.78	7.71	7.82	5.04	6.54	7.28	8.36	9.96	11.78	11.03	10.93	107.12
Tongue	NC (29) 588584	40	4.63	3.33	2.86	2.90	2.12	2.69	3.07	3.51	4.11	4.86	4.69	4.55	43.32
Borgie	NC (29) 663579	110	4.69	3.42	2.94	2.94	2.10	2.72	3.11	3.55	4.16	4.95	4.69	4.56	43.83
Loch Choire Lodge	NC (29) 651305	575	5.64	4.25	3.57	3.73	2.54	3.11	3.57	4.04	4.76	5.95	5.33	5.28	51.77
Strathy	NC (29) 830609	125	4.45	3.21	2.79	2.79	2.19	2.70	3.21	3.56	4.07	4.84	4.63	4.41	42.85
Melvich School	NC (29) 877650	200	4.00	2.92	2.50	2.50	2.08	2.36	2.96	3.11	3.69	4.27	4.11	3.96	38.46
Halkirk, Olgrinbeg	ND (39) 091527	232	3.96	2.88	2.46	2.61	1.95	2.46	3.23	3.11	3.65	4.15	4.03	3.92	38.41
Achavarn Lodge	ND (39) 086595	221	3.88	2.83	2.37	2.53	1.96	2.37	3.13	3.09	3.58	4.08	4.00	3.88	37.70
Wick Water to Conon															
Uppat	NC (29) 870025	220	3.13	2.32	2.02	2.32	2.29	2.25	3.19	3.16	3.02	3.73	3.19	2.99	33.61
Ospisdale House	NH (28) 713898	100	3.08	2.23	1.94	2.17	2.01	2.01	2.92	2.92	2.79	3.58	2.89	2.86	31.40
Ben More	NC (29) 346194	1255	14.10	10.15	9.03	9.28	5.69	7.30	8.29	9.65	11.38	13.86	12.25	12.74	123.72

Table II. Monthly and Annual Averages of Rainfall, 1916-1950, Estimated for Short-Term Stations Orkney and Shetland, Naver, Thurso and Wick Water to Conon Areas (continued).

Station	N.G.R.	Height (Feet)	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Year (Inches)
Wick Water to Conon (cont)															
Glenrossal	NC (29) 465040	130	5.18	3.73	3.19	3.33	2.20	2.61	3.15	3.51	4.00	5.17	4.32	4.59	44.99
Garvault	NC (29) 372305	1100	10.25	7.40	6.49	6.76	4.30	5.58	6.12	7.13	8.50	10.15	9.32	9.41	91.41
Corrykinloch	NC (29) 365257	386	8.59	6.29	5.60	5.67	3.52	4.60	5.14	5.98	7.05	8.51	7.82	7.90	76.67
Cassley Power Sta.	NC (29) 396232	325	7.91	5.79	5.23	5.16	3.39	4.17	4.80	5.51	6.43	7.91	7.14	7.21	70.65
Fiag	NC (29) 445238	880	6.21	4.59	4.09	4.20	2.57	3.30	3.81	4.42	5.09	6.21	5.71	5.78	55.98
Achany	NC (29) 569018	280	4.60	3.40	2.82	3.03	2.12	2.45	3.24	3.24	3.65	4.69	4.02	4.23	41.49
Tarbatness	NH (28) 947875	60	1.84	1.32	1.16	1.43	1.78	1.60	2.37	2.26	2.04	2.42	1.97	1.76	21.95
Ardross School	NH (28) 644736	495	3.13	2.32	1.89	2.08	2.05	1.92	2.88	2.88	2.76	3.50	2.76	2.82	30.99
Aultdearg	NH (28) 288652	725	6.59	4.60	3.84	3.73	2.54	3.14	3.68	4.22	4.70	6.17	5.14	5.73	54.08
Loch Luichart Manse	NH (28) 317625	310	5.46	3.80	3.13	3.04	2.15	2.59	3.09	3.36	3.89	5.15	4.30	4.79	44.75
Loch Luichart, East	NH (28) 390575	165	5.24	3.52	2.92	2.92	2.10	2.36	3.22	3.39	3.73	4.93	4.08	4.51	42.92
Bridgend	NH (28) 323551	400	6.12	4.15	3.45	3.40	2.40	2.75	3.50	3.90	4.35	5.77	4.95	5.32	50.06
Strathvaich Lodge	NH (28) 349743	790	6.65	4.57	3.87	3.87	2.61	3.10	3.81	4.19	4.79	6.21	5.12	5.66	54.45
Dubh Choille	NH (28) 399683	1150	5.91	4.07	3.29	3.29	2.37	2.76	3.63	3.78	4.26	5.52	4.55	4.99	48.42
Fairburn House	NH (28) 455528	500	4.54	3.08	2.47	2.51	1.87	2.14	2.89	2.96	3.26	4.24	3.68	3.86	37.50
Muir of Ord	NH (28) 527500	150	3.27	2.32	1.79	1.99	1.85	1.75	2.65	2.62	2.62	3.30	2.71	2.89	29.76
Blackstand	NH (28) 716612	520	2.89	2.13	1.82	2.07	2.29	2.20	3.20	3.17	2.79	3.48	2.73	2.60	31.37

Table III. Accumulated Mean Daily Rainfall, in inches, 1916-1950

BALTASOUND

Date	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
1	.25	5.10	8.98	12.58	15.50	17.88	20.44	23.08	26.09	30.10	34.91	40.02
2	.40	5.20	9.08	12.69	15.59	17.95	20.51	23.15	26.24	30.29	35.07	40.22
3	.57	5.29	9.19	12.80	15.67	17.99	20.60	23.22	26.34	30.42	35.22	40.35
4	.72	5.43	9.31	12.89	15.77	18.05	20.80	23.28	26.44	30.55	35.46	40.57
5	.87	5.58	9.43	12.99	15.86	18.13	20.87	23.36	26.54	30.73	35.65	40.76
6	1.05	5.75	9.52	13.12	15.95	18.29	20.95	23.40	26.66	30.82	35.81	40.99
7	1.21	5.94	9.64	13.25	15.99	18.39	21.01	23.51	26.76	30.94	35.97	41.20
8	1.37	6.10	9.78	13.34	16.10	18.47	21.09	23.63	26.88	31.18	36.12	41.37
9	1.54	6.27	9.86	13.40	16.17	18.52	21.18	23.74	26.99	31.25	36.33	41.57
10	1.69	6.43	9.97	13.54	16.24	18.64	21.24	23.86	27.12	31.36	36.46	41.73
11	1.83	6.56	10.10	13.62	16.32	18.74	21.30	23.97	27.21	31.50	36.64	41.82
12	2.05	6.66	10.22	13.74	16.39	18.83	21.36	24.08	27.32	31.61	36.81	41.97
13	2.24	6.76	10.32	13.84	16.51	18.99	21.44	24.14	27.49	31.81	37.02	42.15
14	2.46	6.89	10.43	13.99	16.58	19.06	21.48	24.26	27.63	31.96	37.16	42.31
15	2.60	7.03	10.55	14.11	16.65	19.15	21.55	24.40	27.77	32.12	37.35	42.47
16	2.73	7.17	10.65	14.22	16.73	19.23	21.65	24.47	27.91	32.30	37.47	42.66
17	2.90	7.32	10.79	14.28	16.80	19.28	21.68	24.53	28.08	32.44	37.65	42.82
18	3.10	7.50	10.93	14.34	16.88	19.39	21.76	24.66	28.22	32.57	37.80	42.97
19	3.26	7.63	11.03	14.46	16.92	19.46	21.83	24.70	28.40	32.71	37.97	43.12
20	3.43	7.74	11.15	14.53	16.99	19.56	22.07	24.81	28.50	32.87	38.12	43.28
21	3.57	7.87	11.24	14.62	17.09	19.67	22.14	24.95	28.67	33.02	38.26	43.45
22	3.70	7.99	11.31	14.72	17.12	19.77	22.23	25.08	28.83	33.14	38.43	43.55
23	3.83	8.12	11.41	14.81	17.18	19.84	22.29	25.16	28.96	33.28	38.63	43.68
24	3.96	8.22	11.52	14.90	17.29	19.90	22.36	25.21	29.10	33.46	38.82	43.79
25	4.08	8.34	11.64	15.02	17.33	19.94	22.43	25.28	29.22	33.69	39.04	43.92
26	4.23	8.48	11.79	15.13	17.44	20.04	22.51	25.41	29.39	33.93	39.21	44.09
27	4.34	8.62	11.88	15.22	17.56	20.19	22.57	25.53	29.51	34.13	39.38	44.25
28	4.45	8.75	11.99	15.30	17.63	20.29	22.68	25.61	29.67	34.27	39.54	44.40
29	4.57	8.80	12.15	15.36	17.70	20.31	22.76	25.71	29.80	34.41	39.71	44.60
30	4.73		12.36	15.44	17.79	20.40	22.95	25.80	29.98	34.57	39.88	44.76
31	4.92		12.48		17.83		23.05	25.93		34.75		44.93

Table III. Accumulated Mean Daily Rainfall, in inches, 1916-1950

WICK

Date	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
1	0.19	3.03	5.02	6.82	8.82	10.63	12.69	15.31	17.91	20.80	23.94	27.09
2	0.32	3.12	5.06	6.90	8.88	10.72	12.73	15.41	17.99	20.87	24.04	27.20
3	0.45	3.20	5.12	7.00	8.93	10.78	12.80	15.45	18.10	20.95	24.15	27.33
4	0.53	3.26	5.17	7.07	9.02	10.85	12.87	15.48	18.18	21.04	24.31	27.44
5	0.67	3.36	5.26	7.14	9.06	10.95	12.93	15.55	18.24	21.16	24.43	27.56
6	0.76	3.45	5.30	7.23	9.14	11.04	13.00	15.59	18.33	21.24	24.52	27.67
7	0.90	3.52	5.35	7.34	9.22	11.07	13.08	15.70	18.45	21.31	24.63	27.78
8	1.00	3.59	5.41	7.40	9.28	11.14	13.17	15.75	18.57	21.39	24.69	27.84
9	1.07	3.66	5.45	7.45	9.32	11.21	13.25	15.83	18.65	21.51	24.79	27.94
10	1.16	3.72	5.48	7.52	9.37	11.31	13.32	15.93	18.75	21.60	24.88	28.02
11	1.25	3.79	5.52	7.57	9.42	11.37	13.40	16.01	18.83	21.68	24.96	28.14
12	1.37	3.84	5.57	7.65	9.47	11.43	13.49	16.09	18.92	21.77	25.04	28.21
13	1.45	3.91	5.62	7.70	9.54	11.48	13.56	16.18	19.03	21.88	25.13	28.27
14	1.52	4.02	5.65	7.78	9.61	11.56	13.64	16.26	19.14	21.99	25.24	28.35
15	1.61	4.06	5.72	7.85	9.69	11.62	13.78	16.35	19.22	22.08	25.36	28.47
16	1.69	4.11	5.78	7.93	9.78	11.71	13.88	16.47	19.34	22.20	25.44	28.58
17	1.79	4.15	5.85	7.96	9.84	11.76	13.95	16.58	19.47	22.33	25.56	28.70
18	1.89	4.20	5.92	8.01	9.90	11.81	14.07	16.69	19.59	22.44	25.68	28.79
19	1.98	4.27	5.99	8.07	9.92	11.85	14.15	16.74	19.69	22.53	25.78	28.83
20	2.06	4.33	6.05	8.12	9.98	11.94	14.26	16.83	19.83	22.62	25.89	28.91
21	2.13	4.39	6.11	8.19	10.05	12.04	14.44	16.94	19.93	22.73	25.96	28.99
22	2.22	4.45	6.15	8.23	10.11	12.11	14.53	16.99	20.06	22.83	26.07	29.12
23	2.31	4.50	6.21	8.30	10.17	12.17	14.57	17.06	20.17	22.93	26.24	29.20
24	2.38	4.56	6.28	8.27	10.25	12.23	14.63	17.16	20.24	23.05	26.33	29.29
25	2.47	4.63	6.32	8.46	10.28	12.30	14.75	17.26	20.32	23.16	26.47	29.40
26	2.54	4.72	6.39	8.53	10.31	12.34	14.85	17.35	20.42	23.30	26.58	29.50
27	2.59	4.81	6.44	8.63	10.39	12.43	14.90	17.46	20.50	23.43	26.71	29.63
28	2.67	4.88	6.50	8.69	10.44	12.50	15.00	17.60	20.58	23.57	26.80	29.70
29	2.74	4.93	6.57	8.73	10.49	12.53	15.06	17.66	20.64	23.69	26.90	29.80
30	2.78		6.67	8.77	10.54	12.62	15.15	17.72	20.72	23.77	27.00	29.89
31	2.93		6.74		10.58		15.19	17.82		23.84		29.97

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Table IV. Accumulated Frequencies of Daily Rainfall, in inches, 1916-1950

WICK

Daily totals	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	All Months
2.20				1									1
2.10				1									1
2.00				1									1
1.90				1									1
1.80				1		1							2
1.70				1		2							3
1.60				1		2		1					4
1.50				1		2		1					4
1.40				1		2		2	1				6
1.30				2		2		2	1				7
1.20				2		2	1	3	1				9
1.10				2	1	2	2	3	2	1	2		15
1.00	1			2	1	4	3	3	3	3	2	1	23
0.90	3			2	1	4	8	5	5	6	6	3	43
0.80	4	1	1	3	2	6	13	9	7	7	6	3	62
0.70	11	2	3	3	2	8	19	16	12	10	11	7	104
0.60	18	2	7	8	5	12	26	22	21	20	19	10	170
0.50	26	7	12	15	11	17	35	38	33	51	39	24	308
0.40	42	20	18	26	22	29	57	53	60	60	56	52	495
0.30	86	43	41	44	46	52	96	96	94	95	102	90	885
0.20	159	104	77	97	92	105	140	144	170	178	180	178	1624
0.10	346	263	208	249	239	238	258	275	317	363	369	363	3488
0.005	805	705	724	729	620	640	673	692	748	795	804	810	8745
* ≤0.004	280	284	361	321	465	410	412	393	302	290	246	275	4039
Total No. of Days	1085	989	1085	1050	1085	1050	1085	1085	1050	1085	1050	1085	12784

* Including rainless days

G.20025/MAL/9/64/100

Table IV. Accumulated Frequencies of Daily Rainfall, in inches, 1916-1950

BALTASOUND

Daily totals	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	All Months
2.40							1†						1
2.30							2						2
2.20						1	3						4
2.10						1	3						4
2.00						1	3						4
1.90						1	3			1			5
1.80	1					1	3			1			6
1.70	1					2	3			1	1		8
1.60	1					2	3			1	1	1	9
1.50	1		1			2	3	2		1	1	1	12
1.40	1		1			2	3	2	1	2	2	1	15
1.30	2		1			2	3	3	1	2	3	1	18
1.20	2		1		1	3	6	4	1	2	3	2	25
1.10	3		3		1	3	8	6	6	3	3	4	40
1.00	3		4		1	4	9	8	9	7	4	5	54
0.90	5	1	5	1	3	4	12	9	12	12	5	8	77
0.80	5	4	6	1	8	10	14	12	15	19	14	10	118
0.70	11	12	14	4	12	13	18	18	24	26	24	18	194
0.60	35	25	21	12	14	17	25	24	38	46	38	29	324
0.50	64	44	34	26	27	32	35	38	57	67	69	58	551
0.40	190	83	62	38	43	51	47	62	87	103	114	109	989
0.30	234	150	117	78	79	81	74	98	142	168	190	187	1598
0.20	312	244	226	166	134	140	124	162	240	293	330	322	2893
0.10	581	467	409	381	253	252	257	288	413	492	567	561	4921
0.005	1033	919	952	897	745	781	789	864	935	988	1009	1046	10958
*≤ 0.004	52	70	133	153	340	269	296	221	115	97	41	39	1826
Total No. of Days	1085	989	1085	1050	1085	1050	1085	1085	1050	1085	1050	1085	12784

* Including rainless days

† Highest 4.28 inches

G.20025/MAL/9/64/100

Table V. Maximum Daily Rainfall in inches

	Period	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Baltasound	1907-1963	1949 1.89	1951 1.23	1940 1.53	1910 1.15	1937 1.22	1928 2.26	1935 4.28	1946 1.59	1930 1.48	1907 1.96	1907 1.78	1937 1.61
Wick	1907-1963	1959 1.18	1955 1.26	1908 0.95	1934 2.27	1912 1.63	1917 1.85	1956 1.95	1918 1.65	1908 1.90	1954 1.11	1909 2.10	1936 1.07

G.20025/MAL/9/64/100

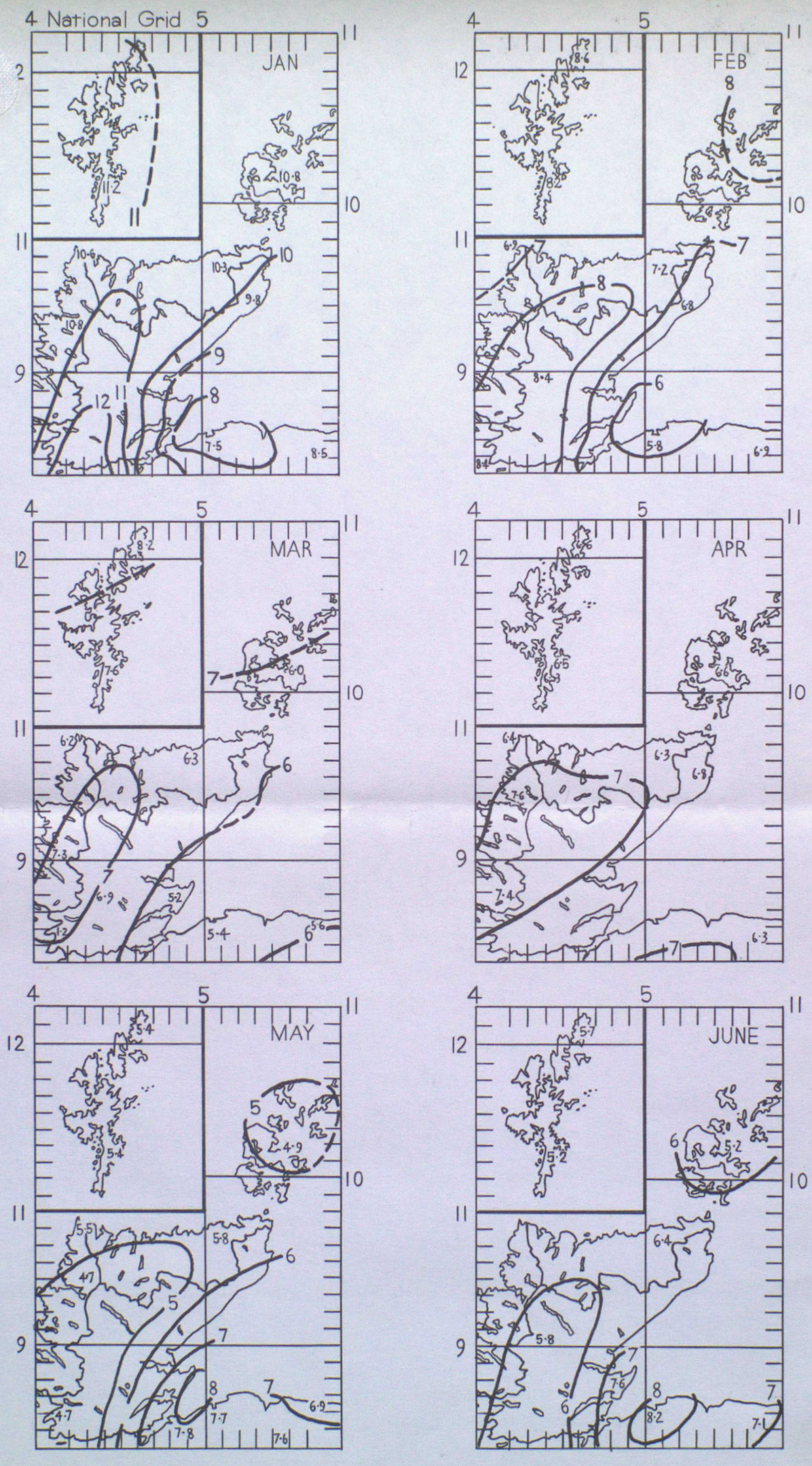

Fig I. Average Monthly Rainfall, as Percentage of Average Annual Rainfall, 1916–1950, January to June

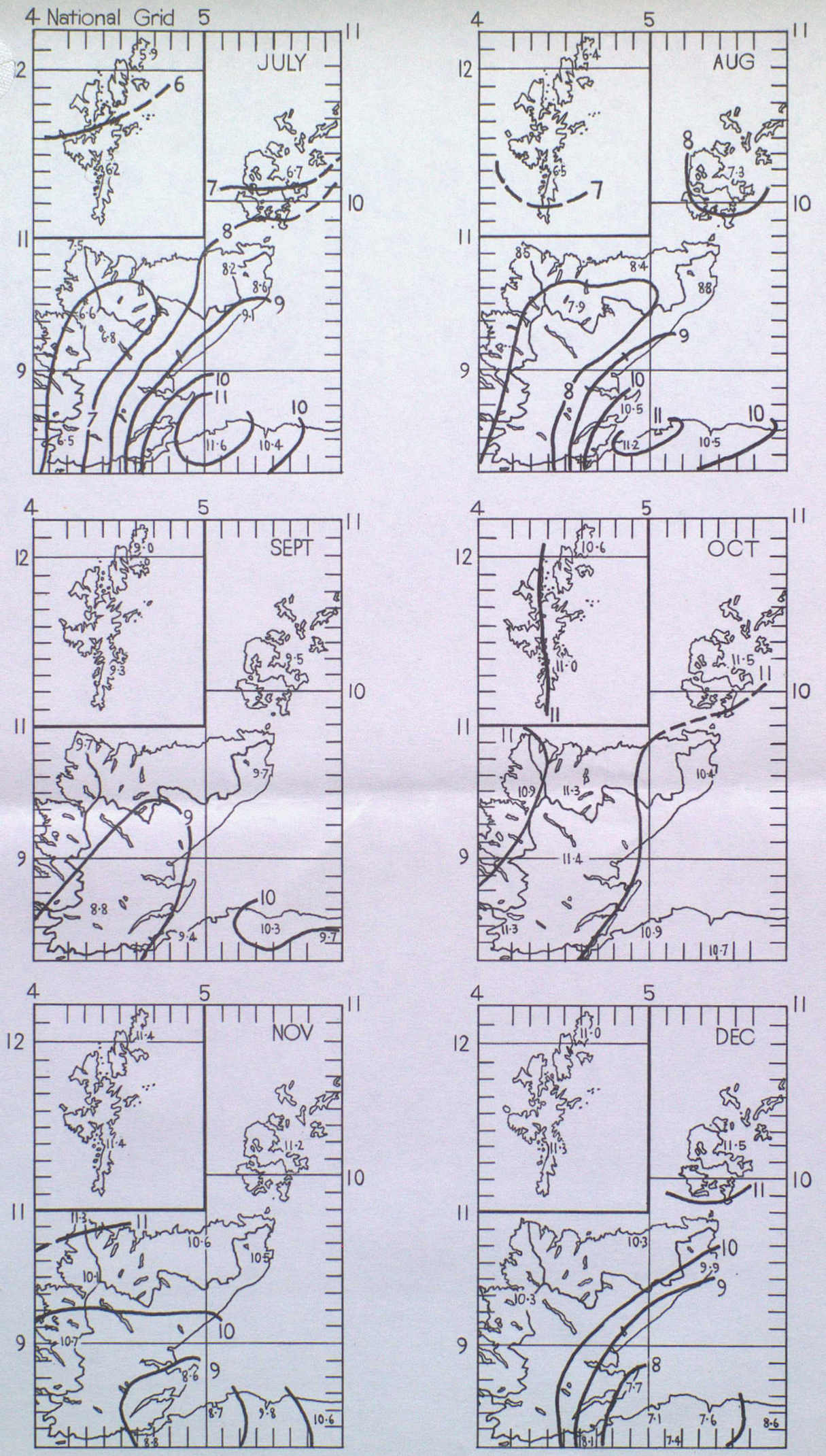

Fig I Average Monthly Rainfall, as Percentage of Average Annual Rainfall, 1916–1950, July to December

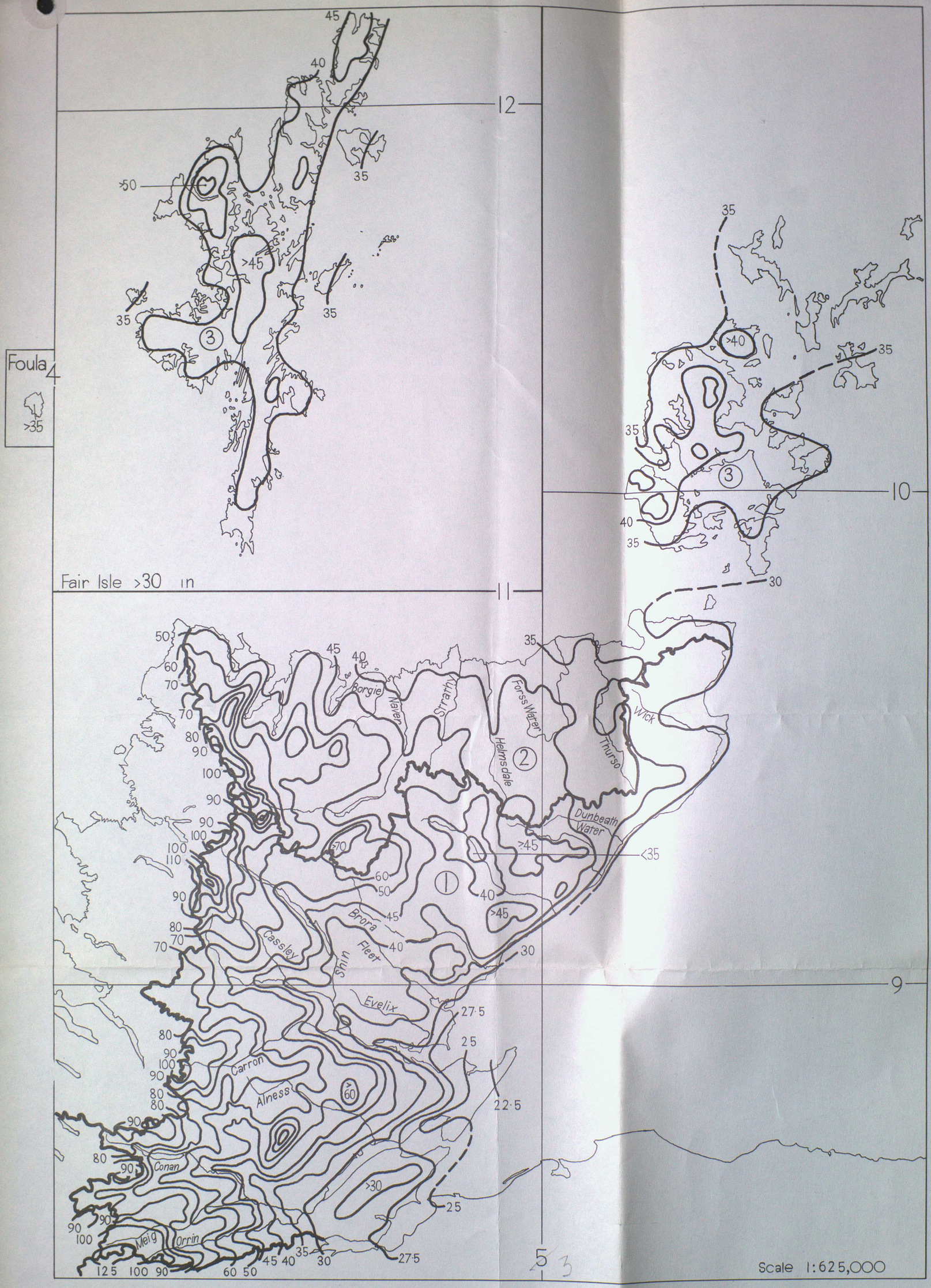

Fig 2 AVERAGE ANNUAL RAINFALL, 1916 1950, (in inches) over the hydrometric areas of:

①	②	③
1 Wick	2 Helmsdale	96 Naver
3 Shin	4 Conan	97 Thurso
		107 Orkneys
		108 Shetlands